Alexandria Mobility Plan

ADVISORY COMMITTEE MEETING #2
April 17, 2019
City Hall, Council Work Room
6:00 PM to 7:00 PM

AGENDA

- Welcome and Introductions (15 min)
- Where are we now? (10 min)
- About the Plan (15 min)
- Related Plans and Resources (10 min)
- Next Steps (10 min)

ADVISORY COMMITTEE MEMBERS

Committee Member	Appointee
Transportation Commission	Alyia Gaskins, Chair Stephen Klejst (Alexandria Transit Co.) Melissa McMahon (Planning Commission) David Brown (Planning Commission) Oscar Gonzalez Jake Jakubek (West of Quaker) Casey Kane (Traffic & Parking Board) Bruce Marsh (East of Quaker) Carolyn Schroeder (Environmental Policy Commission) Canek Aguirre (Councilmember) John Chapman (Councilmember)
Alexandria Commission on Persons with Disabilities	Debby Critchley
Alexandria Chamber of Commerce	Maria Ciarrocchi

Welcome and Introductions

- Learn: Meet the new project manager
- Share: Your ideas/goals for this plan

THE ROLE OF THE COMMITTEE

Mission: Provide input to City staff on the development of the Alexandria Mobility Plan (AMP)

Tasks:

A. Provide input on updated vision and guiding principles
B. Provide input on chapter-specific content
C. Discuss and advise on AMP update-related topics and questions
D. Support community engagement efforts by reporting back to commissions, boards, and groups represented

TENTATIVE MEETING PLAN

Meeting #3	May 15, 2019	Trends / Best Practices
Meeting #4	June 19, 2019	Vision / Outreach Plan
Meeting #5	July 17, 2019	Innovation Forum
Meeting #6	September 18, 2019	SWOT / Guiding Principles
Meeting #7	October 16, 2019	Chapter Specific Goals and Objectives
Meeting #8	November 20, 2019	Smart Mobility Policy Questions
Meeting #9	December 18, 2019	TDM Strategies
Meeting #10	January 15, 2020	Streets Strategies
Meeting #11	February 19, 2020	Document Review / Draft Outreach
Meeting #12	March 18, 2020	Outreach Update
Meeting # 13	April 22, 2020	Updates to Draft / Endorsement

WHERE ARE WE NOW

Progress on strategies from 2008 Transportation Master Plan (TMP) and the City's 2017 Strategic Plan

TMP Accomplishments

We've advanced many major initiatives:

- Transit: Priority Corridors
  - Corridor A constructed
  - Corridor B identified funding and updating design
  - Corridor C beginning design and environmental in 2019
- Bicycle and Pedestrian
  - Updated in 2016
- Streets
  - Complete Streets Policy
  - TDM strategies
- Parking
  - Comprehensive study for supply/demand parking policies

TMP Outstanding Items

Some initiatives have not been started:

- Conduct HOV studies
- Develop means of data collection that provides an efficient means of tracking the success of streets serving all users.
- Systematically prioritize curb space
- Conduct feasibility study for parking structures outside of downtown due increase transit usage

Opportunities

New staff is being hired to advance certain initiatives:

- Parking Program Manager
- Smart Mobility Manager

CoA Strategic Plan 2022 Targets

• Increase the percentage of commuters using alternative transportation options from 37 percent in 2013 to 40 percent	• 2019 estimate: 40%
• Reduce the number of traffic crashes from 1,440 crashes in 2015 to 1,400	• 2019 estimate: 1209
• Reduce the number of traffic crashes that result in fatalities and severe injuries from 2015's 15	• 2016 reported: 22
• Reduce the number of pedestrians and bicyclists struck by vehicles from 2015's 106	• 2016 reported: 96
• Maintain the percentage of residents with a positive view of the overall ease of getting to places they usually visit at or above 2016's 73 percent	• 2019 estimate: 77%
• Increase Alexandria's Pavement Condition Index rating from 58 out of 100 (fair) in 2016 to 71 out of 100 (satisfactory)	• 2019 estimate: 60

About the Plan

Including peer examples

PLAN CONTEXT

City of Alexandria Strategic Plan

Environmental Action Plan (Transportation)

Bicycle and Pedestrian Master Plan

Transit Vision Study

Alexandria Mobility Plan

Vision Zero Implementation

State and Regional Plans

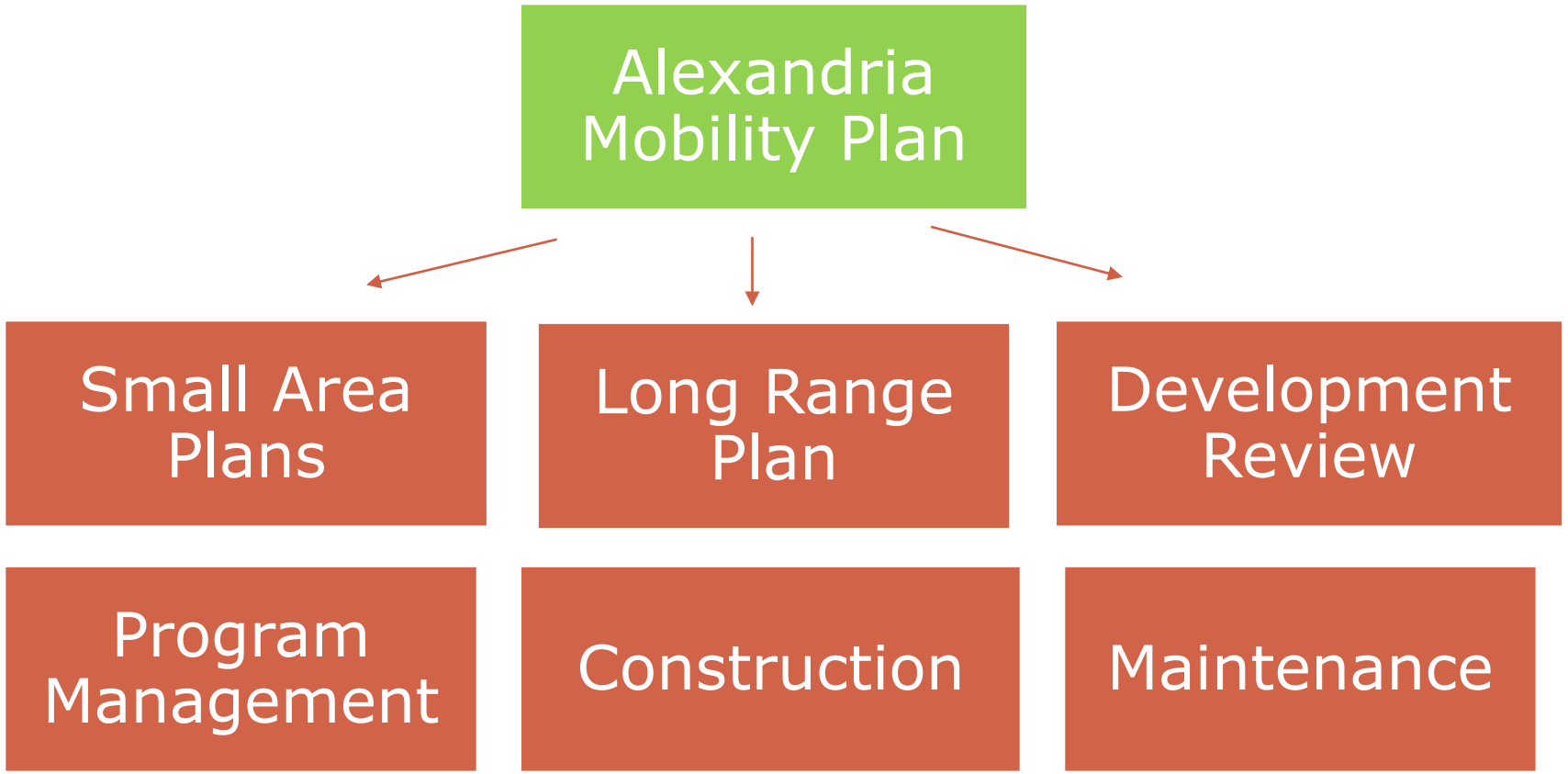
Complete Streets Guidelines

Residential Parking Permit Refresh

Plan Overview and Purpose

- A strategic update to the 2008 Plan (not a completely new plan)
- Consistency with new policies and plans since 2008
  - Vision Zero
  - Complete Streets Guidelines
  - Bicycle and Pedestrian Plan
  - Environmental Action Plan 2040
- New context into vision, goals, and strategies
  - New mobility options
  - Enhanced technology
  - Changing demographics
- Opportunity to engage on the future of mobility in Alexandria

PLAN CONTEXT



PHASED APPROACH

Phase I –2019 - 2020

- Introduction, Vision and Guiding principles
- Ch 2 Pedestrian & Bike – incorporation only
- Ch 3 Streets
- Ch 5 Framework for Smart Mobility Chapter
- Ch 6 Transportation Demand Management (TDM)

Phase II – 2021 - 2022

- Ch 1 Transit
- Ch 4 Parking & Curbside Management
- Ch 5 Smart Mobility

STREETS CHAPTER

- Street type designation and roles (updates to functional class)
- Operations and management (traffic calming, one-ways, etc.)
- Guidance for new developments (connectivity)

Sample questions for the Streets Chapter:

- How do we improve connectivity in the City while preserving neighborhood character?
- How can we better utilize our existing streets (for whom)?

Arlington's Streets Element

Table of Contents

I. Introduction.....2

II. Summary.....3

III. Policies, Implementation Actions and Performance Measures.....4
- A Well-Connected Network of Streets Compatible with Adjacent Land Uses
- Complete Streets that Accommodate All Users and Encourage Alternatives to Driving
- Manage Streets to reduce Injuries Sustained in Traffic Crashes
- Manage Streets to Maximize Their Efficient Use and Minimize Long-Term Public Expense
- Enhance the Human and Natural Environments

IV. Functional Classifications and Controlled-Access Highways 19
- Street Classifications
- Controlled Access Highways

V. A New Typology for Arlington Streets.....23
- Arterial Streets
- Local (Non-Arterial) Streets
- Alleys and Private Streets
- Street Improvement Projects

Tables and Figures
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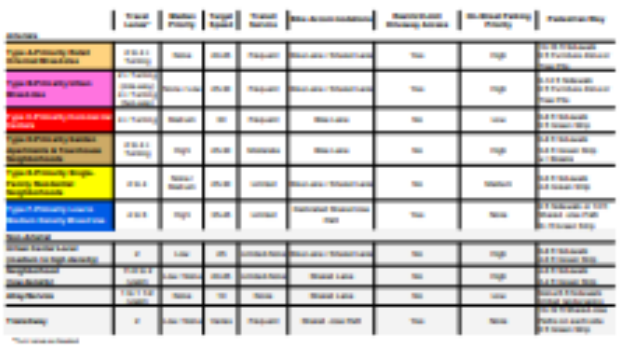
- Table 1: Arlington Street Typology with Associated Street Characteristics.....26
- Table 2: Local Streets Design Criteria 31

Appendix A: Traffic Crashes Statistical Summary 33
Appendix B: Green Streets information 36

Street Typology

This map designates specific types of arterial streets. The proposed typology has been developed to shape decision-making about a given street section in terms of its planned land -use context and multi-modal function. This overlay is the principal guide for the rebalancing, redesigning and rebuilding of arterial streets to become Complete Streets that provide for all modes of travel as well as serve the adjacent land uses. More specific guidelines for improving the various designs of existing streets within each general type are set forth in the Streets Modal Element. Non-arterial (local) streets should also have designed features to complement their land -use context and function as illustrated in the table below. Arlington will also continue to use its Functional Classification of streets to guide operational and maintenance priorities . Typical elements and dimensions for each street type are illustrated in the table below . Factors such as existing and planned land-use types and intensities, right-of-way availability, travel demand, transit operations, neighborhood character, historic designations, presence of mature tre os, topography, and community concerns should be considered in the development of the final dimensions and design of any street.

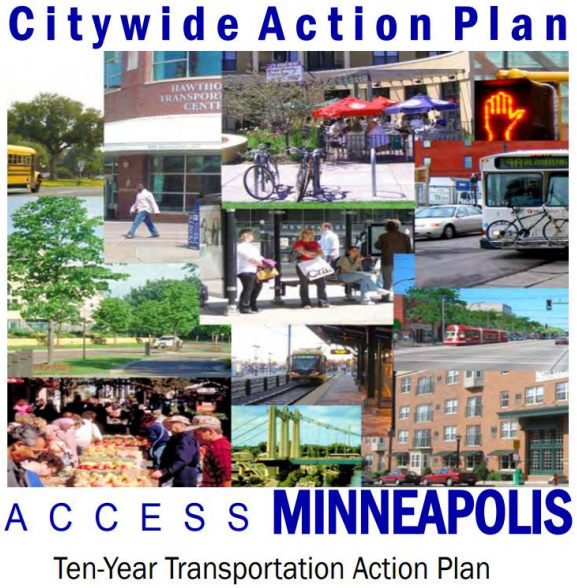


Note: The nomenclature of the typologies, found in the legend and tabl e above, is designed to help users understand the typology assignments by indicating where each street types are most commonly found. Land uses in the GLUP, other land-use plans or existing zoning designations are not meant to be affected, changed or inte rpreted based upon the name of an abutting street type.

Minneapolis' Streets Element

2010-2020 Plan

4. **Ten-Year Action Plan** 38
Objective 1: Make transportation design decisions based on place type in addition to street function 38
Objective 2: Ensure that all streets in the city are safe, convenient and comfortable for walking 43
Objective 3: Provide a well-connected grid of bike lanes 44
Objective 4: Provide the best possible transit service on a Primary Transit Network 45
Objective 5: Encourage people to walk, bike, take transit rather than drive 52
Objective 6: Optimize the use, safety and life of the street system 55
Objective 7: Manage and Operate Streets to Support All Modes of Transportation 60
Objective 8: Make consistent decisions for curbside uses 68



2020-2030 Plan
(Under Development)

ALEXANDRIA MOBILITY PLAN

TDM Chapter

- Non-infrastructure solutions to reduce single occupancy vehicle travel
- Education, encouragement, and marketing based

Sample questions for the TDM Chapter:

- How can we most effectively incentivize non-SOV trips in order to reduce congestion, GhG emissions, and municipal costs, and improve health and quality of life?
- How should we use technology to support improving mobility options?
- How should we integrate new modes into our TDM programs and ensure they are achieving our goals?

Arlington's TDM Element

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- TDM Policies and Implementation Actions
- TDM Performance Measures
- TSM Policies and Implementation Actions
- TSM Performance Measures

III. Context 10

- Background
- Demand Management
- Arlington County's Existing Commuter Services Program: The Delivery Mechanism for TDM
- Traffic Signals and Intelligent Transportation Systems
- Emergency Preparedness
- High Occupancy Incentive Corridors
- The Impetus for TDM and TSM
- TDM is Effective and Cost-Effective

IV. TDM Strategies.....20

Tables:

Table 1. TDM and TSM Benefits..... 18

Table 2. Mode Use at ArlingtonWorksites Offering TDM Services 19

SMART MOBILITY CHAPTER

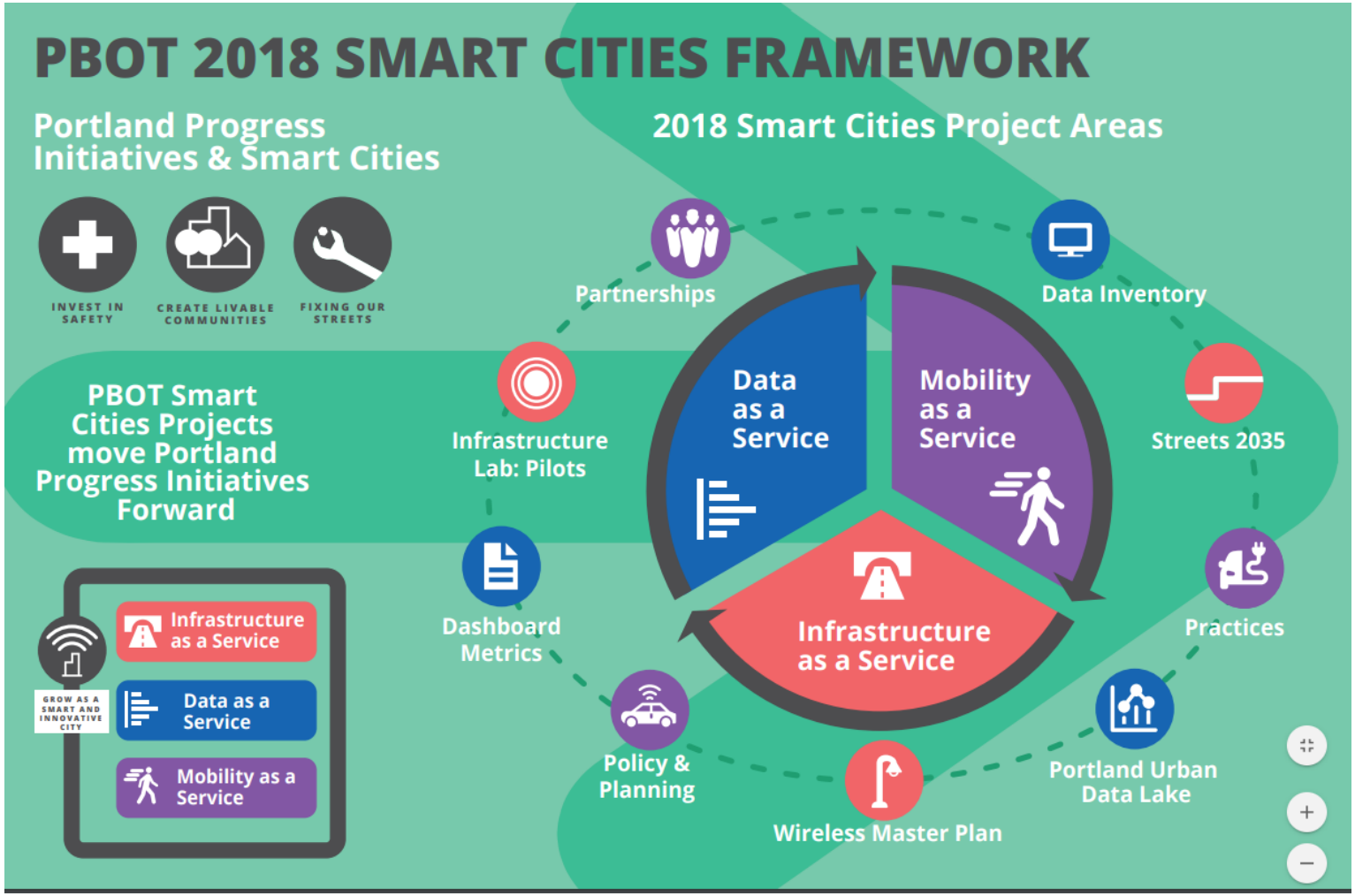
Smart Mobility Framework
The Alexandria Mobility Framework defines Smart Mobility as:

- Applying Information Technology (IT) to the transportation system
- Supporting more affordable and sustainable mobility choices
- Using advancements in IT to collect, analyze, and apply data to optimize the transportation network

Sample questions for Phase I of Alexandria Mobility Plan:

- Are there additional smart mobility initiatives should the City explore to better achieve our goals?
- What policy questions must we consider as we develop a program to expand smart mobility?
- What are our priorities?

Portland: Smart Mobility



Phase II Chapter Content

Phase II – 2021 - 2022

- Ch 1 Transit
  - Incorporate Alexandria Transit Vision Plan
  - Address policies to achieve vision
- Ch 4 Parking & Curbside Management
  - On-street and off-street parking
  - Balancing needs of freight, private cars, rideshare, and bikes/scooters
- Ch 5 Smart Mobility
  - Developing policies and strategies for advancing smart mobility solutions to achieve our goals

Other Plans and Resources

Existing City Plans and Policies

- CoA Transportation Master Plan (2008 & 2016 update)
- CoA Strategic Plan FY 2017-2022
- 2016 Transportation Needs Assessment
- CoA Complete Streets Policy/Guidelines
- CoA Bicycle and Pedestrian Master Plan Update (2016)
- CoA Environmental Action Plan 2040
- Vision Zero Action Plan
- GoAlex Travel Demand Management Program
- ITS Master Plan
- Smart Mobility Framework
- What's Next Alexandria Handbook

Other Plans and Resources

Regional Plans

- Virginia Department Of Transportation (VDOT): VTrans2040
  - Vision and Needs Assessment of corridors of regional and statewide significance
  - Feeds 2025 Action Plan
- Northern Virginia Transportation Authority (NVTA): TransAction
  - Future-looking project based planning document
- National Capital Planning Commission (NCPC): Visualize2045
  - Goals and objectives jurisdictions can help advance
  - Both financially constrained and unconstrained projects

NEXT STEPS (TENTATIVE)

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PUBLIC COMMENT

Thank you!

NEXT MEETING: Wednesday May 15, 2019

For more information visit
alexandriava.gov/mobilityplan
OR contact Jen Slesinger
Jennifer.Slesinger@alexandriava.com
(703)746-4007

Alexandria Mobility Plan

ADVISORY COMMITTEE MEETING #3
May 15, 2019
City Hall, Council Work Room
6:00 PM to 7:00 PM

AGENDA

- Welcome and Introductions (10 min)
- Project Update (5 min)
- Plan Context & Discussion (35 min)
- Next Steps (10 min)

Plan Overview and Purpose

What the AMP is

- A guiding policy and strategy document for future planning and decision-making
- A strategic update to the 2008 Plan based on current context and needs
- An incorporation of new policies and strategies established since 2008

What the AMP Is Not

- Taking the City in a completely new direction
- A reconsideration of recent policy decisions
- A list of projects

PHASED APPROACH

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- Ch 4 Parking & Curbside Management
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Consultant Selection

Kimley»Horn

TOOLE DESIGN

NEONICHE STRATEGIES

Consultant Selection

ERIN MURPHY, AICP
Project Manager

Kimley»Horn

Professional Credentials

Master of Science, Civil Engineering, Carnegie Mellon University

Bachelor of Science, Civil and Environmental Engineering, Carnegie Mellon University

American Institute of Certified Planners

Years of Service with Firm

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Erin brings 12 years of integrated multimodal transportation planning and analysis on a multitude of scales to her role as project manager. She has significant experience in urban planning related to transit-oriented development, complete streets and streetspace allocation, and modal network development for pedestrians, bicycles, transit, and vehicles. She is well versed in the application of travel demand models, sub-area models, and travel demand forecasts with a multimodal perspective. Erin is skilled in the effective analysis and development of recommendations for complex multimodal transportation systems and was instrumental in the development of the District of Columbia's award-winning multimodal long-range transportation plan—moveDC. Erin has developed fiscal constraint analysis and quantitative prioritization processes for a number of long-range plans. She also has led many stakeholder and public engagement processes and is passionate about merging technical planning with engagement—leading to clear, consensus-driven decision making.

RELEVANT EXPERIENCE

Long-Range Multimodal Transportation Plan (moveDC), Washington, DC

National Park Service, National Capital Region Comprehensive Long-Range Transportation Plan, Washington, DC

Crosstown Multimodal Transportation Study, Washington, DC

Old Town North Small Area Plan Transportation Study, Alexandria, VA

North Potomac Yard Transportation Plan, Alexandria, VA

Crystal City Multimodal Transportation Study, Arlington, VA

Pembroke Area Comprehensive Transportation Plan, Virginia Beach, VA

Alexandria Transit Vision Plan, Alexandria, VA

Alternatives Analysis and Environmental Assessment for the West End Transitway, Alexandria, VA

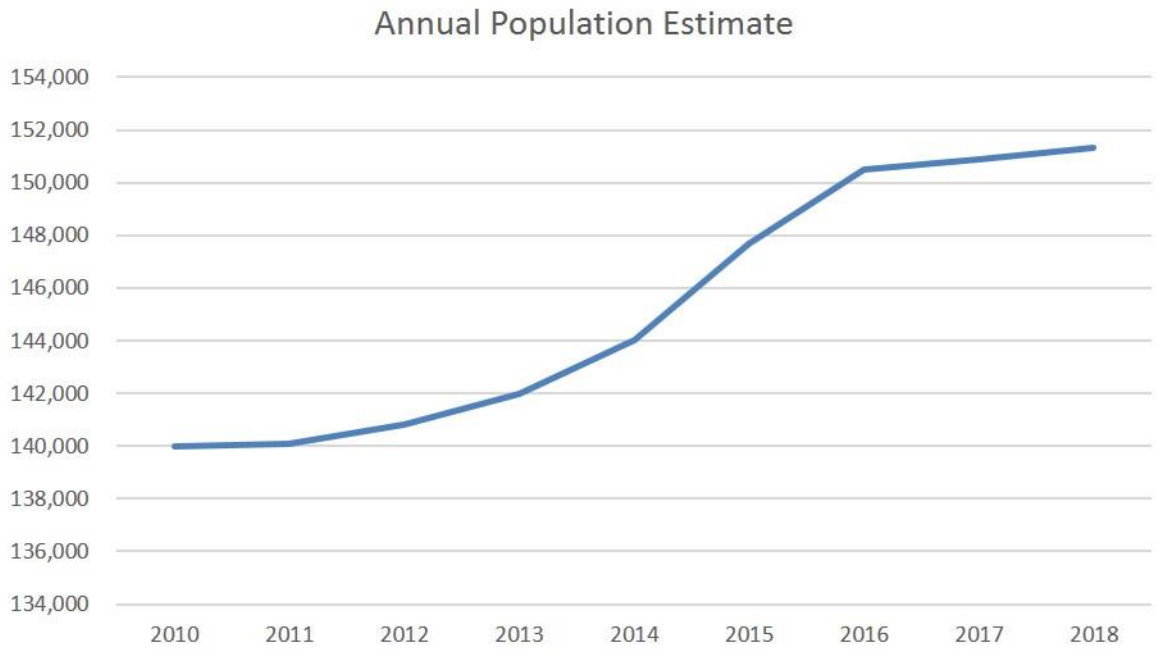
Southeast Boulevard and Barney Circle Environmental Assessment, Washington, DC

ALEXANDRIA CONTEXT

Purpose of review:

- Understand what Alexandria looks like today
- Learn what has changed since the last plan
- Discuss what this means for the Alexandria Mobility Plan

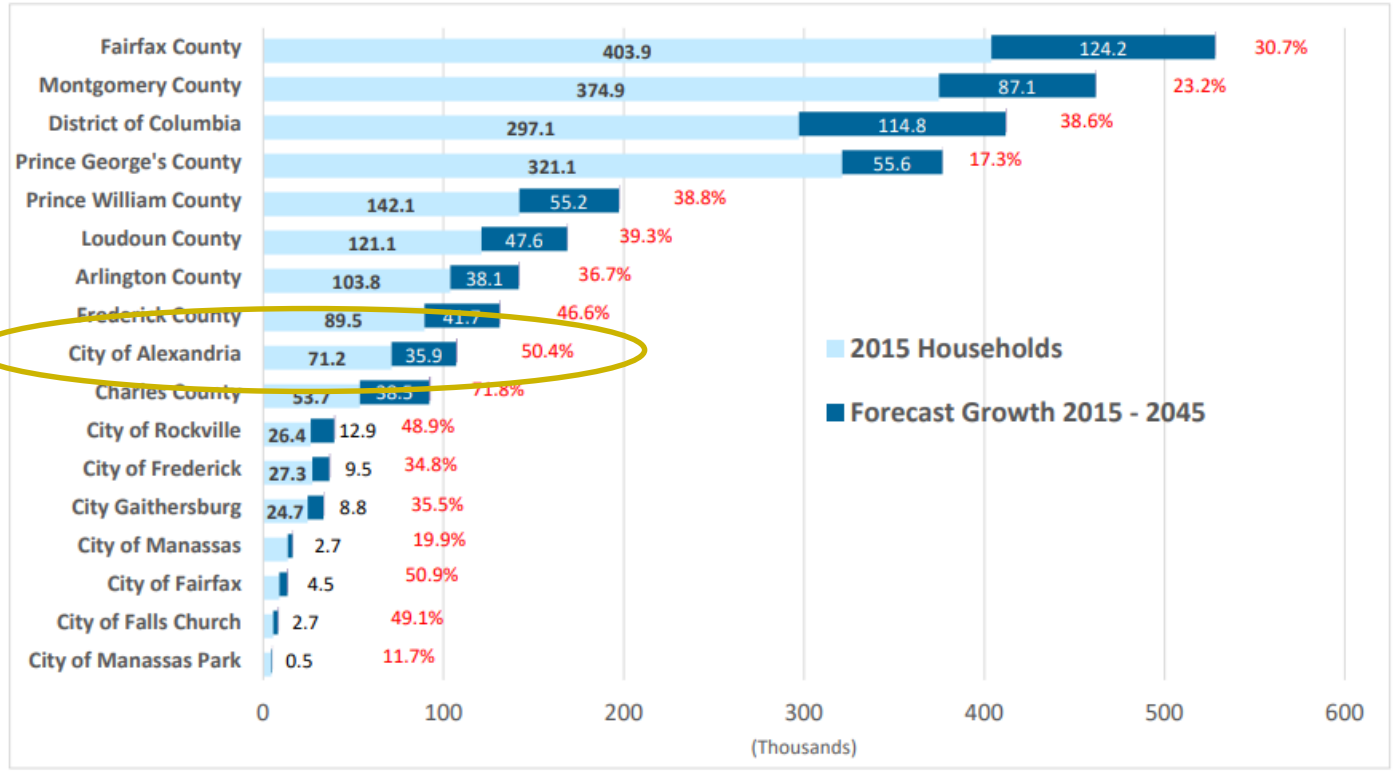
ALEXANDRIA CONTEXT



Source: City of Alexandria estimates.

ALEXANDRIA CONTEXT

Forecast Household Growth (Thousands; 2015-2045)



Metropolitan Washington Council of Governments

Round 9.1 Cooperative Forecasts
February 21, 2018

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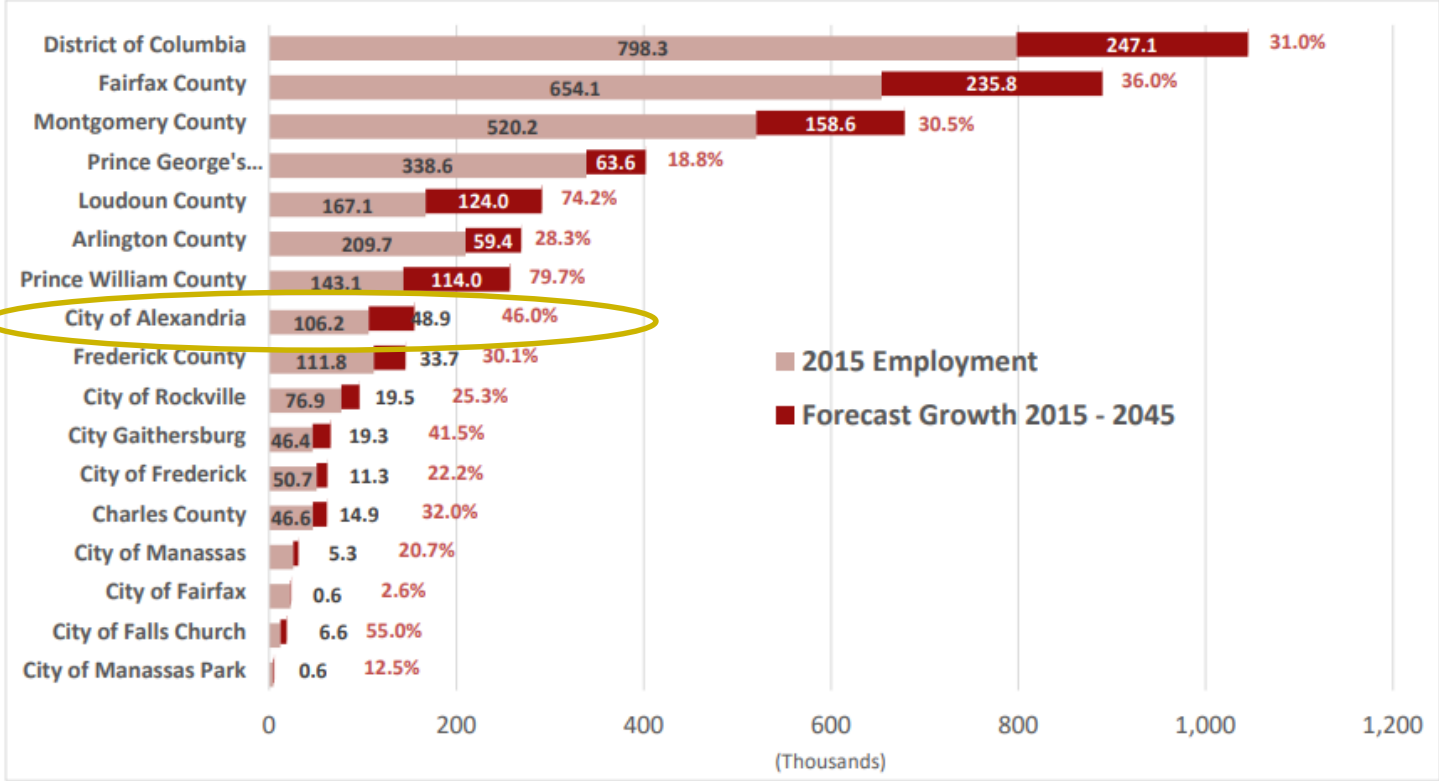
ALEXANDRIA CONTEXT

Forecast Employment Growth (Thousands; 2015-2045)



Metropolitan Washington Council of Governments

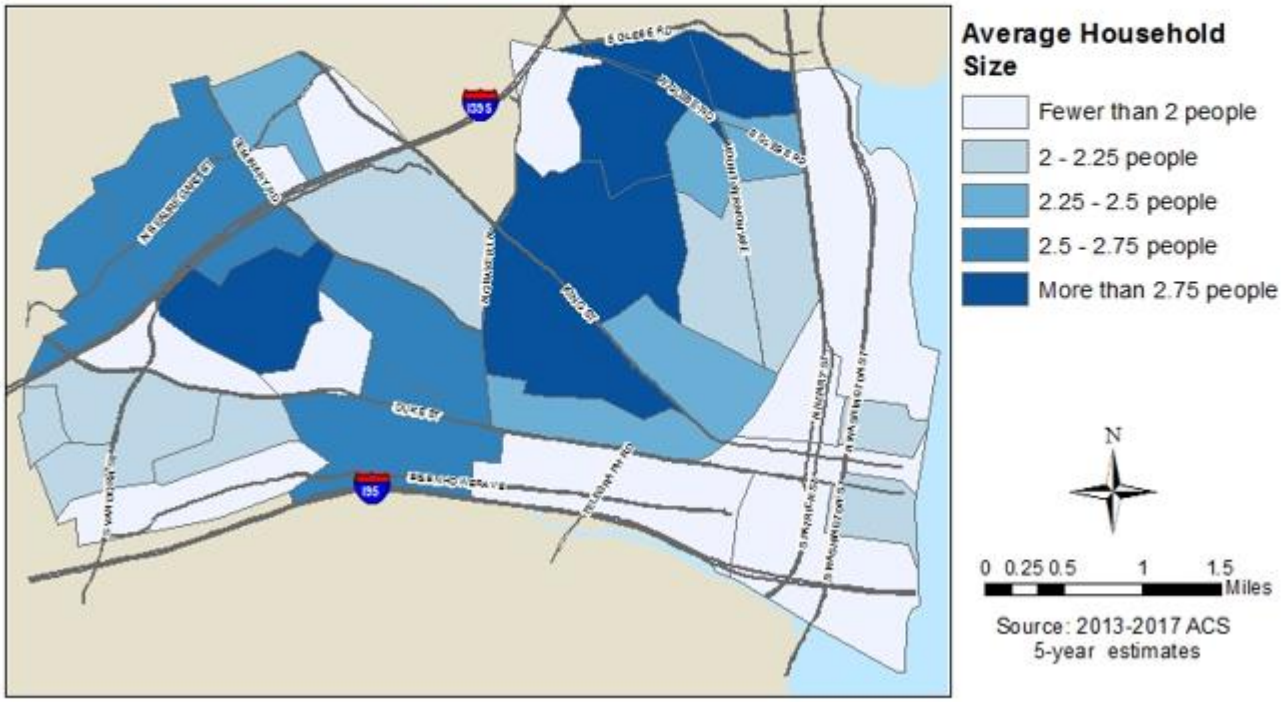
ALEXANDRIA CONTEXT

Household characteristics

Average Household Size

The average household size in the City of Alexandria (City) is 2.23, which is 4 percent larger than in 2012. Figure 1 shows how average household size varies by Census Tract.

Figure 1. Average household size, by Census Tract



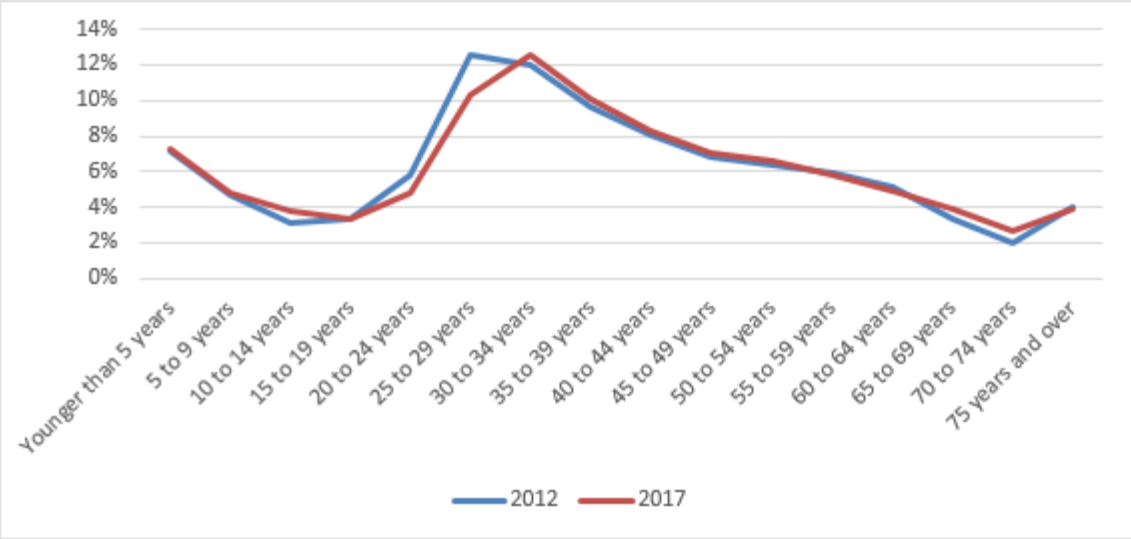
ALEXANDRIA CONTEXT

Individual characteristics

Age

The City's median age is 36.4 years, up 2 percent from 2012. This corresponds with the 2017 and 2012 age distributions shown in Figure 4. The City had larger shares of residents between the ages of 65 and 74 in 2017 than in 2012, and smaller shares of residents between the ages of 20 and 29.

Figure 4. Age distribution, by ACS vintage



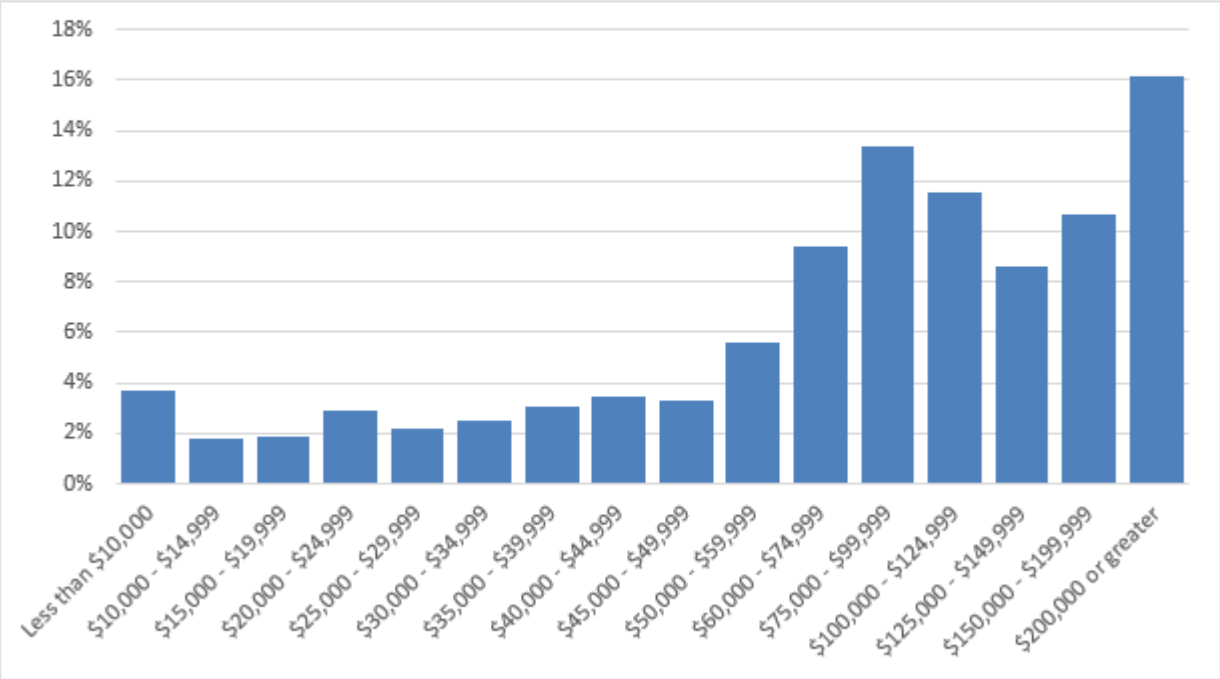
Source: 2008-2012 and 2013-2017 ACS 5-year estimates.

ALEXANDRIA CONTEXT

Median Household Income

The median household income in the City is $93,400, which is 4 percent larger than in 2012[2]. Figure 2 shows the City's current household income distribution, and Figure 3 shows median household income by Census Tract.

Figure 2. Household income distribution



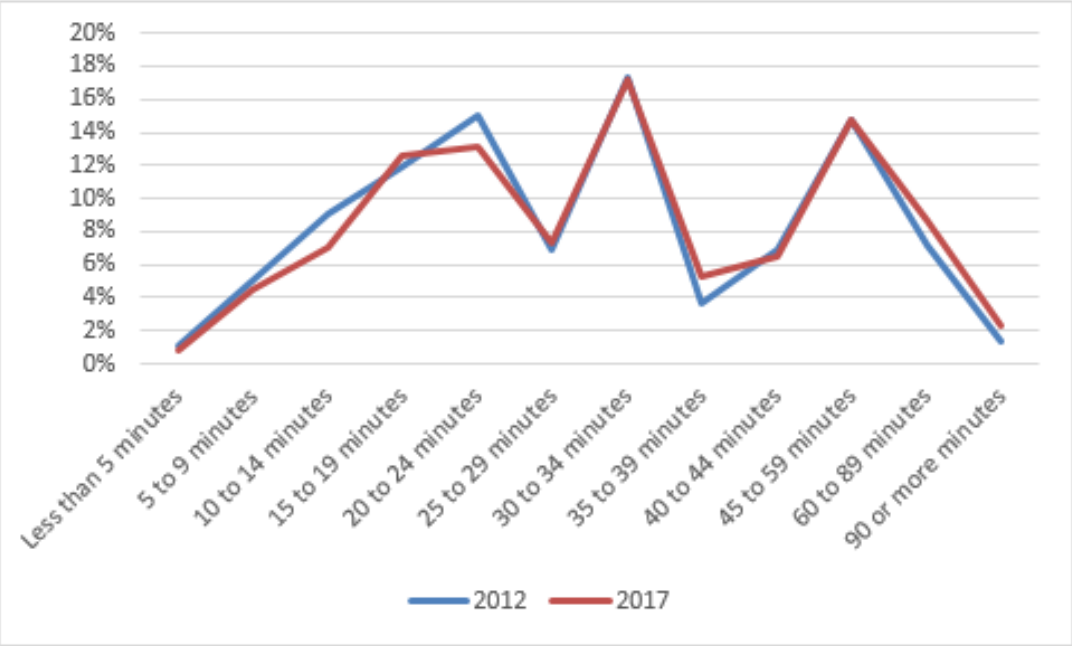
Source: 2013-2017 ACS 5-year estimates.

ALEXANDRIA CONTEXT

Commute time

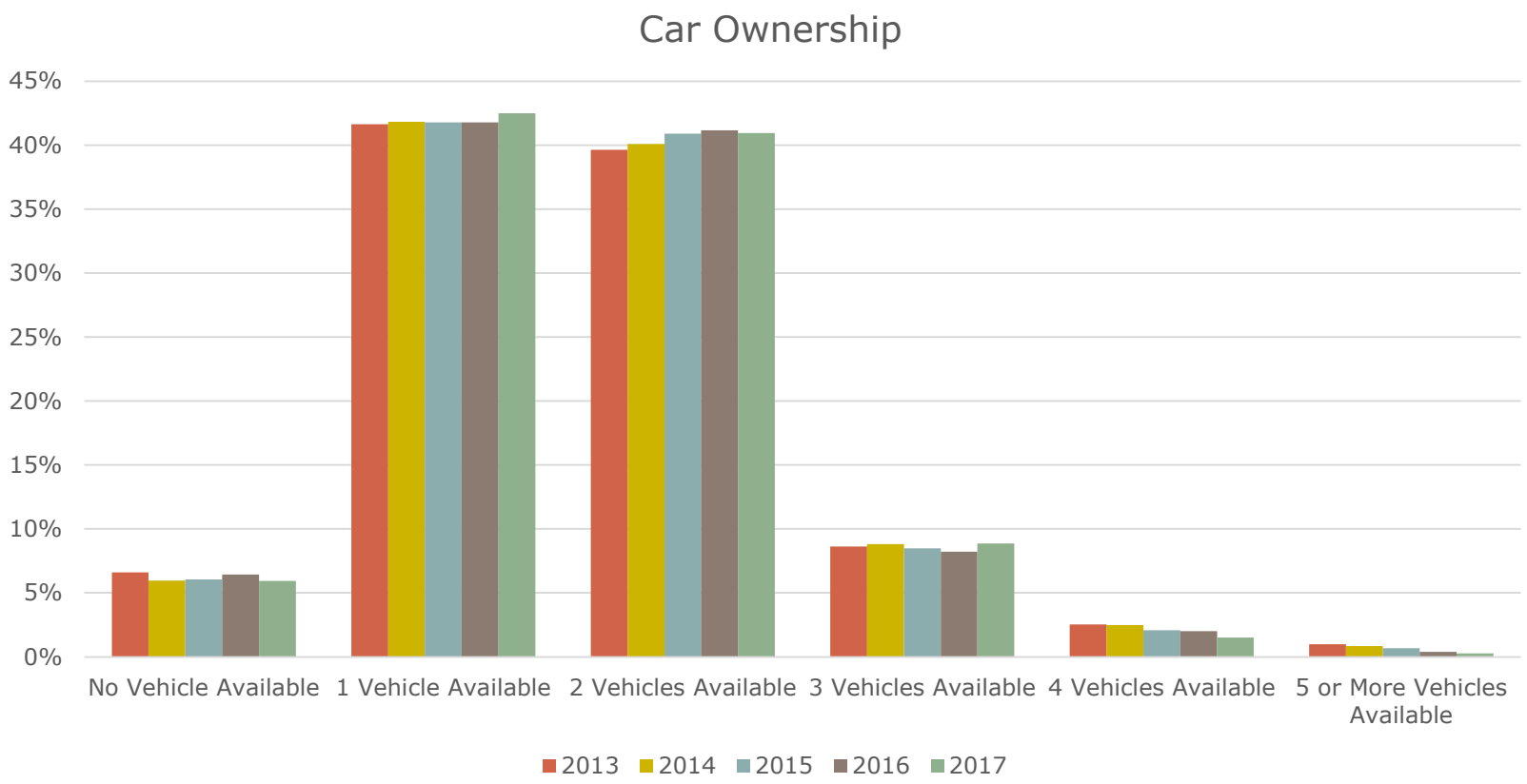
The average commute time among residents over age 16 is 31.8 minutes, up by 6 percent from 2012. Figure 6 shows that commute time distributions for 2012 and 2017 are relatively similar.

Figure 6. Commute time distribution, by ACS vintage



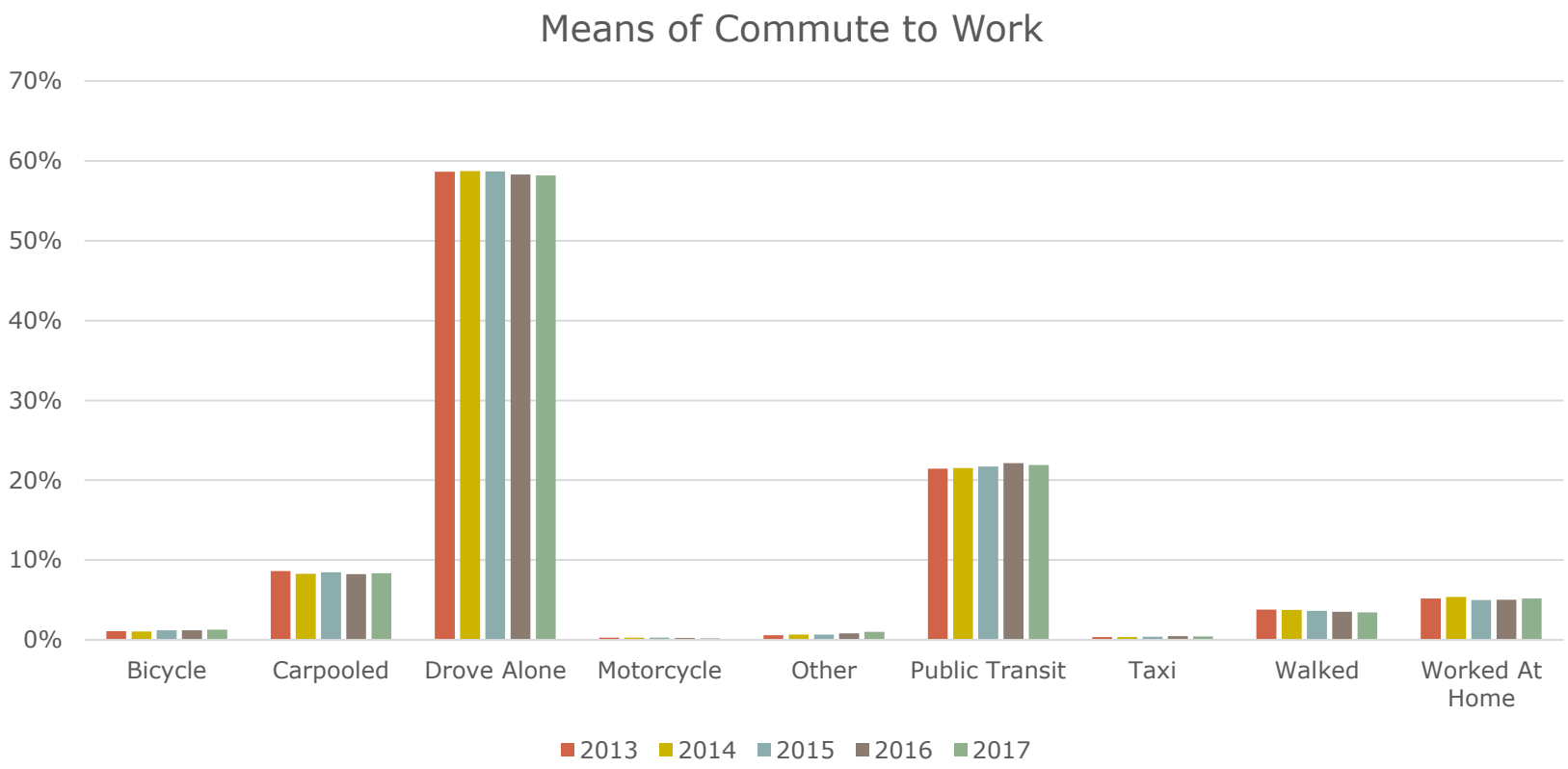
Source: 2008-2012 and 2013-2017 ACS 5-year estimates.

ALEXANDRIA CONTEXT



Source: DataUSA

ALEXANDRIA CONTEXT



Source: DataUSA

General Mobility Trends

Purpose of review:

- Understand what is happening in the world of transportation planning right now
- Discuss what ideas may be relevant to Alexandria
- Direct staff on further research

Mobility Trends

- Transportation Network Companies (TNCs)
- Autonomous vehicles
- Mobility as a Service for TDM
- Open Streets
- Waze effect
- Pilot bus lanes/ ‘flexible implementation”
- Pricing
- Equity considerations
- Measuring what matters

Partnerships with TNCs

JUNE 7, 2018

How Lyft Works With Public Transit Agencies Across the Country to Eliminate Transportation Barriers

At Lyft, we envision a world in which cities are not built around parking lots and roads, but are reimagined to center around our communities. And we believe that partnering with public transit agencies is critical to this vision.

Partnerships with TNCs

Examples:

- **Dial-A-Ride service -** City of Monrovia, California
  - **Goal:** Expand mobility options; increase ridership of City's Dial-A-Ride service
  - **Program**: Access a Lyft ride anywhere in the GoMonrovia service area for $0.50, and to easily connect to the LA Metro Gold Line
- **Paratransit Service -** Boston's MBTA; Regional Transportation Commission of Southern Nevada
  - **Goals:** Reduce cost and improve convenience of paratransit program
  - **Program**: Volunteers can request paratransit through TNC partners
- **First Mile / Last Mile**
  - Jurisdiction: Pierce County Transit, WA (free); Marin, CA, Charlotte, NC (discounted)
  - **Goals**: Improve access to transit, increase transit ridership
  - **Program**: Free or discounted fares with transit start/end point.

Autonomous Vehicles

WAMU | FEB 13

Toaster-Shaped Autonomous Shuttle Is First To Test On Public Roads In Maryland

Jordan Pascale

LISTEN

Olli operates in autonomous mode all by itself, using an array of sensors, lidar, radar, GPS and cameras. But it also has a "steward" that can take over in an emergency.

Jordan Pascale / WAMU

Autonomous Vehicles

How to achieve sustainability?

- Car-free or car-lite households
  - Land use
  - Fewer vehicle trips
- People-oriented streets/cities
- Prioritizing high-volume transit

How to fail at sustainability?

- VMT
  - Zombie Trips
- Auto trips
  - From sustainable modes
- Sprawl
- Auto-oriented streets/cities

What tools do cities have?

- Zoning
- Curbside management
- Street layout
- City plans
- AV testing
- Transit corridors
- Partnerships
- Lobbying

Mobility as a Service

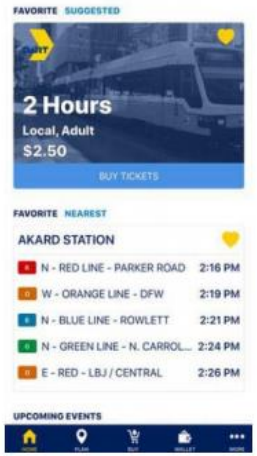
DRAFT

Mobile solution 1

Supporting information: DART developed a user-friendly, integrated GoPass mobile application

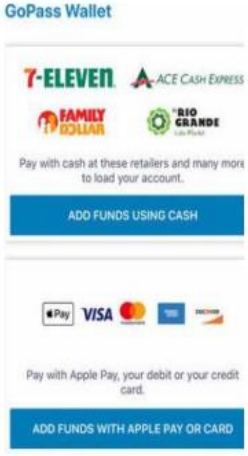
GoPass Case study

Easy trip-planning

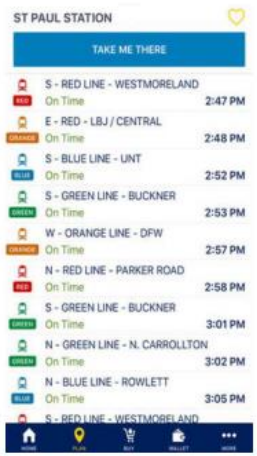


Multi-modal options

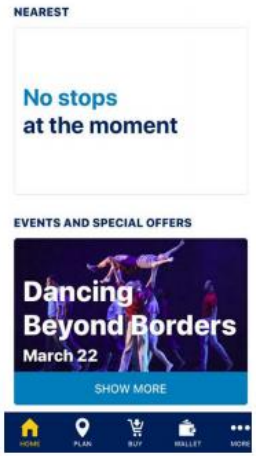
Seamless cash or card payment



Real-time information



Relevant advertisements



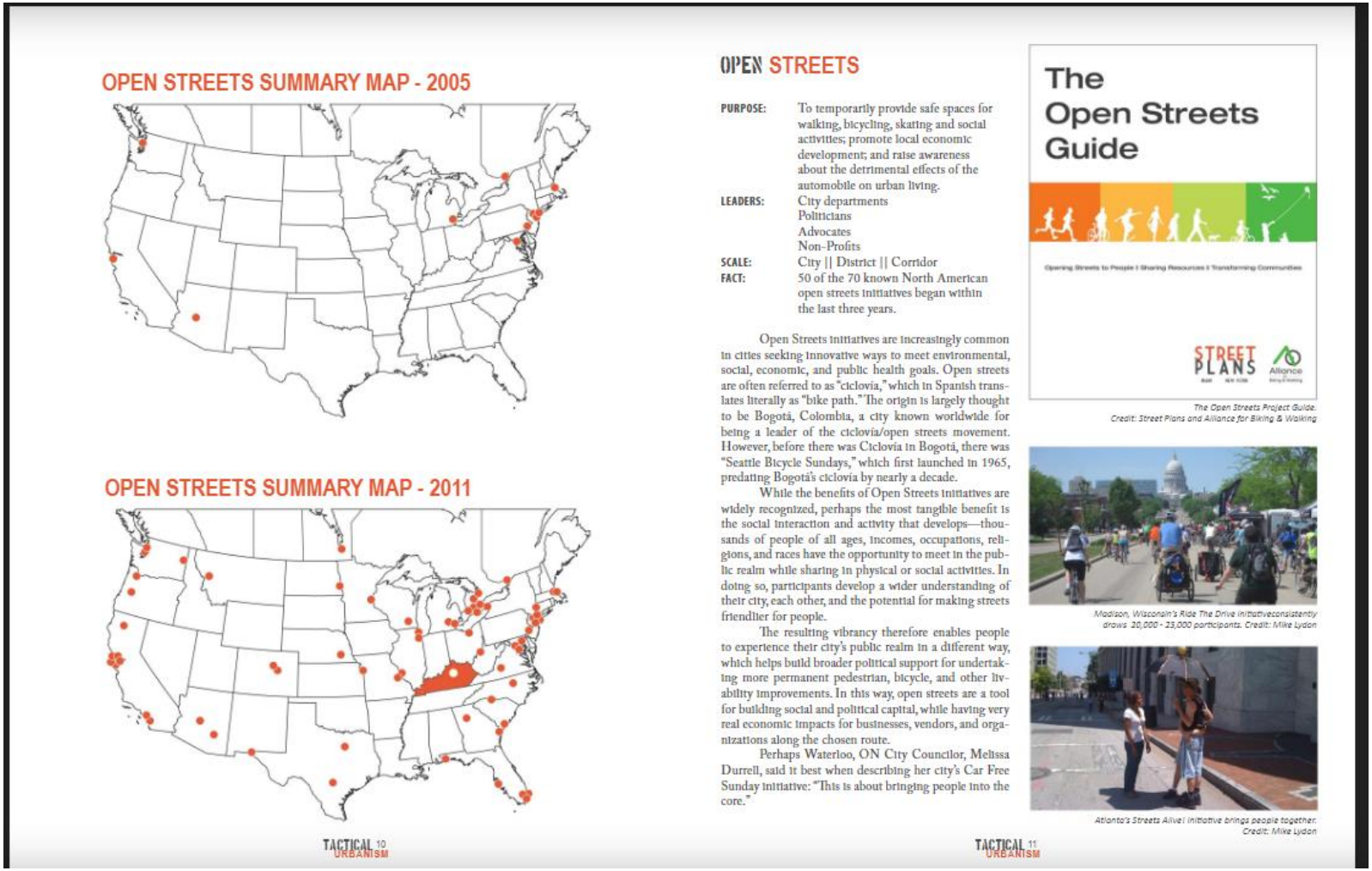
"This app really works fast. It's convenient without the hassle of finding a ticket vending machine."
-Customer review ★★★★★

Source: GoPass application

40

www.BusTransformationProject.com

The Rise of Open Streets



From Open Streets to Permanent Plazas

Tactical plaza at Franklin Street, Downtown Boston (Photo courtesy of MP Boston)

Pilot Bus Lanes

TransitCenter

Jan 02, 2018

Everett Bus Lane: The Little Pop-Up That Could

Pricing Strategies

Too many cars? DC to consider tolls, congestion pricing

By Max Smith | @amaxsmith
May 2, 2019 4:25 pm

Traffic moves along 16th Street in front of the White House in Washington, Tuesday, March 1, 2016. (AP Photo/J. David Ake)

Driving into part or all of D.C. could require paying a toll in the future, under a $480,000 study proposed by the D.C. Council.

The WAZE Effect

THERE ARE BETTER WAYS TO KILL TRAFFIC THAN LYING TO WAZE

COKADA/GETTY IMAGES

People Centered Metrics

- Measuring person-throughput instead of vehicle throughput
- Pedestrian Level of Service / Quality of Service
- Bicycle Level of Service / Quality of Service
- Transit capacity and quality of service
- VMT Reduction (San Francisco)

Equity

- Focus on the intersection of health and transportation
- Access and opportunity
- Transportation cost burdens

Discussion

- Which of these topics do you think are most relevant for the AMP?
- Are there other trends and topics that you think are important as well?

Discussion

- What do you think are the biggest challenges facing Alexandria (current and future)?
- What do you think are the biggest opportunities (current and future)?

Next Steps

- Upcoming meetings - Discussion

NEXT STEPS (TENTATIVE)

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Meeting #5	July 17, 2019	Innovation Forum
Meeting #6	September 18, 2019	SWOT / Guiding Principles
Meeting #7	October 16, 2019	Chapter Specific Goals and Objectives
Meeting #8	November 20, 2019	Smart Mobility Policy Questions
Meeting #9	December 18, 2019	TDM Strategies
Meeting #10	January 15, 2020	Streets Strategies
Meeting #11	February 19, 2020	Document Review / Draft Outreach
Meeting #12	March 18, 2020	Outreach Update
Meeting # 13	April 22, 2020	Updates to Draft / Endorsement